KENT STATE UNIVERSITY
IAKM KNOWLEDGE MANAGEMENT CONCENTRATION

This proposed course catalog of core required and elective courses has been prepared for consultation with KSU KM Advisory Board Members, current KM faculty, current and prospective students, faculty in other university schools or departments with overlapping interests, and external experts in the field of Knowledge Management. The curriculum is intended to support the broad needs of professionals entering or working in the field of knowledge management in the 21st century knowledge economy.

Knowledge Management Course Descriptions

Required Courses

IAKM 60301 Fundamental Principles of Knowledge Management (same)
This course covers an introduction to: historical roots for knowledge and knowledge management; theories/definitions of knowledge; theories, applications, tools, and practices of KM; Knowledge Management Life-Cycle Framework and Models; significant issues in KM – best practices, culture, economics, strategy, intellectual capital, sustainable innovation.
3 Credits Fall, Spring Semesters

ECON 62015 Economics of Information (same)
Introduction to micro-economic theory and decision-making in the information economy. Overview of the economics of information. Consumer behavior and production theory; the demand for information; information as a factor of production; information cost and pricing. Case studies in the information industry.
3 credits Fall Semester Prerequisite: IAKM 60301

IAKM 60303 Knowledge Assessment and Evaluation (refocused)
This course covers methods for identifying and assessing an organization's knowledge assets, at the individual, the group and the organizational level. Students will learn the life cycle of knowledge and gain familiarity with knowledge management best practices at each step of the life cycle. Students will learn how to evaluate an organization's existing knowledge store against the future needs of the organization. Knowledge metrics and indicators are also covered. Both qualitative and quantitative assessment is covered.
3 credits Spring Semester Prerequisite: IAKM 60301

IAKM 60xxx Organizational Culture (new)
This course examines different types of cultures and how each type influences a knowledge organization - how culture influences the way knowledge workers work, how they make decisions and how they behave, the internal cultures of groups and communities, the cultural attributes of knowledge workers which may impact their knowledge behaviors. Organizational cultures of multicultural, global and virtual organizations will be covered.
3 credits Spring Semester Prerequisites: IAKM 60301

IAKM 60xxx Organizational Learning (new)
This course addresses organizational learning in fast-paced, complex and changing organizational environments. For knowledge organizations in the 21st century, learning is a continuous activity. To survive and grow, a knowledge organization must learn through its people, its groups and the organization as a whole. The capacity to learn is a competitive advantage for a knowledge

organization. This course covers the fundamental theory of organizational learning, organizational learning types, and the five disciplines of learning organizations, and factors that facilitate or impede organizational learning.
3 credits Fall Semester Prerequisites: IAKM 60301

IAKM 60002 Knowledge Organization Systems
Introduction to various types of knowledge organization systems/services/structures (KOS) used in the networked environment. Understanding of the functional, philosophical, logical and linguistic fundamentals of KOS. Explanation of design options, features of KOS, and procedures to be used in the thesaurus, taxonomy and ontology construction.
3 credits Spring Semester Prerequisites: IAKM 60301

IAKM 60xxx Strategic Knowledge Management/Communities of Practice (new)
This course will explore collaboration and communities from both a theoretical and a practical perspective. The theory includes structural elements (defining a community identity, scoping the domain, defining practice), and natural lifecycles, and best practices for cultivating communities. Practical aspects in the strategic placement of communities, the community development process, community design and implementation, and measuring the impacts of communities on intellectual capital creation. The role of Web 2.0 technologies to enable communities is also addressed. Case Studies illustrate communities of practice in education, health care and nursing, disaster management, military sciences, and hobbies and craft circles.
3 credits Spring Semester Prerequisites: IAKM 60301

Elective Courses

Knowledge Strategy and Leadership Electives

IAKM xxxxx Innovation and Idea Generation
Students will explore the latest thinking on innovation, from many different of perspectives: technology, management, economics, communication, culture, policy, psychology, and the new field of "service science." The course begins by examining how to foster innovation within an organization. Students also explore tools and techniques that can help you innovate and collaborate. Course considers innovation in industry sector ecosystems and considers government policies can foster innovation.
3 credits Fall Semester Prerequisites: IAKM 60301

TECH xxxxxx Project Management for Knowledge Organizations
This course covers both the theory and the practice of project management. Students will learn the project life cycle, management of project personnel, such PM artifacts and methods as statements of work (SOW), work breakdown structures (WBS), developing project timelines, establishing project milestones, preparing project budgets, developing responsibility matrices, working with PERT/CPM structures, project quality assurance methods, preparing contingency plans, and project closeout.
3 credits Summer Session Prerequisites: None

IAKM xxxxxx Managing Complex Knowledge Organizations
This course addresses competencies required to manage complex projects and organizations. Knowledge organizations and complex projects are characterized by a degree of disorder, instability, emergence, non-linearity, recursiveness, uncertainty, irregularity and randonment. These organizations are not just complex adaptive organizations but rather are complex evolving

systems dominated by double loop learning. The rules of their development change as they evolve over time. This course will cover strategy and project management, business planning and lifecycle management, organizational architecture, systems thinking and integration, and governance issues.
2 credits Spring Semester Prerequisites: Recommended IAKM (Project Management and IAKM Organizational Culture

IAKM xxxxx Change Management in Knowledge Organizations
Knowledge organizations are dynamic working environments. This course addresses the forces that are changing our organizations today, workforce impacts and adaptations, change models and strategies, creating engagements in the change process and creating shared stakes in the organization's success. The course focuses on the critical role of engagement and communication in successful change processes, core tenets of knowledge management.
2 credits Fall Semester Prerequisites: Recommended Organizational Culture

IAKM xxxxxx Knowledge Strategy Formulation and Execution
This course teaches students how to build the essential components of a knowledge management strategy. Knowledge management strategies are tightly integrated with an organization's strategic and business goals. Students will learn how to design knowledge interventions suited to an organization's knowledge goals and needs, to recommend and development profiles for key knowledge management roles for the organization, and to prepare an enterprise level knowledge management strategy. Case studies representing both successful and failed knowledge management efforts will be studied.
2 credits Summer Semester Prerequisites: IAKM 60301

IAKM xxxxx Knowledge Audits
This course will teach students how to design, prepare for and conduct a knowledge audit. Knowledge audits help organizations to identify and their knowledge-based assets and identify knowledge management goals and objectives. Knowledge audits are qualitative reviews or an organization's knowledge health at multiple levels – organizational, group, and individual. Students will learn to conduct knowledge audits to identify an organization's knowledge needs, to inventory its tacit and explicit knowledge assets, the flow of knowledge throughout the organization – formally and informally, the capture, storage and use of knowledge, barriers and obstacles to knowledge flows, and current knowledge gaps.
2 credits Summer Semester Prerequisites: IAKM 60301

IAKM xxxxx Knowledge Management Maturity Assessments
This course covers industry-standard approaches to Knowledge Management Maturity Modeling, and the methods that organizations use to set maturity targets and monitor their progress against those targets. Students will learn how to assist an organization in identifying their KM goals and objectives, set maturity targets, identify factors and strategies that contribute to achieving those targets, and indicators that help an organization to track progress. Students will work through an actual KM Maturity Modeling exercise in this course.
2 credits Summer Semester Prerequisites: IAKM 60301

IAKM xxxxxx Systems Thinking Skills
This course introduces the theory of systems thinking, and fundamental systems concepts and terms in the context of managing complex organizations. Students will gain a basic understanding of models of systems dynamics, the interactions and connectedness of different components of a system, and some common behaviors of systems (feedback loops, interrelated structures,

oscillation, delays, and other patterns) and archetypes. The course applies systems thinking to a wide range of disciplines and real world problems.
1 credit Summer Session Prerequisites: None

IAKM xxxxx Knowledge Management in the Public Sector
This course covers current Knowledge Management issues in the public sector environment, including open government initiatives, innovation policies, information disclosure and access to information, use of knowledge management strategies to enhance service delivery models and collaboration (B2G, G2B, G2C, C2G, G2G, etc.). Case studies of knowledge management in public sector institutions are discussed.
2 credits Spring Semester Prerequisites: IAKM 60301

Intellectual Capital Management Electives

IAKM 60310 Intellectual Capital Management
This course encompasses the new knowledge-intensive economic units: human capital and social capital intellectual assets, intellectual property, brands, and trademarks. A "lifecycle" approach for intellectual assets is described—creation, codification, valuation, protection, and leveraging of intellectual assets for competitive advantage.
3 credits Spring Semester Prerequisites: 60301

IAKM xxxxxx The Networked Economies
This course will introduce students to the networked knowledge economy. The knowledge economy is fueled by several key factors, including innovation, investments in intellectual capital and education, information technology, and a transparent and trustworthy business environment. Knowledge, like information, has characteristics that challenge some basic economic assumptions, in particular consumption, scarcity, and traditional views of supply, demand and market failures. The knowledge economy, though, brings two factors into central focus – intellectual capital and its ownership, and innovation. In this course, students will be introduced to some of the new thinking and models of the knowledge economy. Students will also be introduced to indexes which track the development of the knowledge economy at the international level.
3 credits Spring Semester Prerequisites: ECON 62015

IAKM xxxxx Competency Development and Management
This course addresses competency based approaches to talent management. Knowledge organizations manage their competencies to support the business direction of the organization. Competencies support organizational change and strategic goals. This course will teach students how to forecast future talent and competency requirements Students will also learn how to develop a competency management plan, including learning activities, assessments, compensation strategies, reward and recognition strategies, succession planning and knowledge transfer, and organizational learning and culture impacts. This course also addresses the relationship between competency management and change management. Competency management issues are considered in different types of organizations using case study analyses, and with attention to different types of organizational change scenarios such as down-sizing, business re-engineering, mergers and closedowns.
2 credits Fall Semester Prerequisites: IAKM 60301

IAKM xxxxxx Managing Intergenerational Workforces
This workshop addresses differences in work and learning styles across the four generations in today's workplace: Radio Babies/WWII, Baby Boomers, Generation X, and Generation

Y/Millennial. Students will learn what factors create a productive working environment for all four generations; allow cross-generational learning, mentoring and collaboration, how to structure reward and recognition systems, and how to manage across the generations to retain talented workers.
1 credit Fall Semester Prerequisites: None

IAKM xxxxx Expertise and Knowledge Networks
This course covers the concept of expertise and the theory, methods and technologies related to expertise and knowledge networks. Basic concept of network analysis are covered such as nodes and relationships, types of networks, network characteristics, and analytical approaches include formal and market approaches, contagion and cohesion. The theory and methods are used to investigate knowledge distribution, knowledge seeking, knowledge diffusion, innovation, collaboration and knowledge networks in different types of organizations and communities. No prior knowledge or experience with network analysis is required. These fundamental concepts and methods are covered in the course.
2 credits Spring Semester Prerequisites: IAKM 60301

Collaboration and Communities Electives

SOC/.IAKM xxxxx Social Network Analysis
This course introduces the concept of network structures and networks in social contexts. Students will learn about social network structures, data collection and representation, network presentation methods (network graphs and matrices), network measures (for individuals and networks), and network connections (random graphs, network evolution). A significant amount of the course focuses on network analysis (social movements, ego neighborhoods, centrality, hierarchy, efficiency, cliques, homophily, social segregation)
3 credits Fall Semester Prerequisites: None

IAKM xxxxx Design of Physical Environment for Knowledge Work
This short course examines the physical and virtual environments of knowledge organizations, and introduces students to key architectural design principles relevant to the 21st century work environment. The course will consider how factors such as multitasking, increased communications and collaboration, the virtualization of the environment, increased technology and workstation densities, and noise levels effect the quality of the physical and virtual work environment.
1 credit Fall Semester Prerequisites: None

Culture and Communications Electives

IAKM xxxxx Storytelling and Business Narrative
The course will focus on the business use of storytelling and narrative intelligence in knowledge organizations. Narrative intelligence is the human ability to make sense of the world through narrative and storytelling. This course covers the basic types of business narratives, including oral and written stories, documentaries, oral histories, organizational myths and legends, use case scenarios, training scenarios, encoded and embedded business rules, gossip and business conversations. Students will learn how to develop business narratives, to craft and deliver a springboard story, to evaluate narrative architectures, and to design systems that support access to business narratives and stories.
3 credits Spring Semester Prerequisites: IAKM 60301

COM/IAKM xxxxx Organizational Communication

Application of communication theory to organizational settings. Exploration of communication structures, processes and methods in organizations. Theory and application of diagnosing communication problems in an organization and the intervention process. (Comm Studies 35864 and CommStudies 45865)

COM/IAKM xxxxx Multicultural and Multicultural Communication
(Develop this course in collaboration with Comm Studies new program in Global Communications)

IAKM xxxxx Reward and Recognition Systems
This course addresses holistic performance management for knowledge organizations. Students will have an introduction to the factors that motivate workers to perform at high levels, particularly in tasks that relate to knowledge practices. Special focus in the workshop is directed to reward and recognition systems designed for continuous improvement and growth in knowledge organizations.
1 credit Spring Session Prerequisites: None

Learning Environment Electives

IAKM xxxxx Experiential and Lifelong Learning Models
This course covers the basic theory and practice of experiential learning and education, and its value to adult lifelong learning (Erikson, Jung, Maslow, Pers, Piaget, Dewey, Knowles, Kolb, Lewin, Senge, Stewart). Students will learn how to leverage experiential learning to train and education all stakeholders. This course includes adult learning styles, methods for integrating experiential learning, resource-academic learning and work-related experiences to form a holistic and continuous learning environment.
2 credits Spring Semester Prerequisites: IAKM (Organizational Learning)

IAKM xxxxx - Problem Detection and Problem Solving
This course teaches students how to leverage critical thinking and creative problem solving to make better decisions. Students will learn to detect and recognize problems, in particular business-critical problems, systematically analyze problems (situation assessment, decision analysis, problem evaluation), identify and model different thinking styles and preferences, create and make effective use of mind maps, and decision-making styles.
1 credit Spring Semester Prerequisites: None

EDTECH/IAKM xxxxx Learning in Virtual Environments
This course will introduce students to the concept that learning in a virtual environment is more than courseware or the construction and design of the virtual space. Virtual learning environments are designed spaces which take into consideration the architecture of knowledge and the interactions involved in learning. Virtual learning environments must be able to support all types of learning (single and double-loop learning, collaboration and group learning, resource based learning, adaptive learning), learning from multiple instructors, synchronous-asynchronous- and hybrid environments. Virtual learning environments are not limited to academic environments. Business environments are key learning environments for knowledge workers.
1 credit Spring Semester Prerequisites: None

Knowledge Operations Electives

IAKM 60312 Business and Competitive Intelligence
An introduction to strategic intelligence consisting of competitive and business Intelligence. Strategic intelligence is an art, science, and craft. Businesses and governments require effective intelligence programs, processes, and tools to track businesses, competitors, markets and trends by acquiring, creating, managing, packaging, and disseminating intelligence knowledge.
3 credits Fall Semester Prerequisites: IAKM 60301

IAKM 60311 Business Process Management
Introduction to Business Process Management and Workflow Management. BPM will describe how organizational business processes, (internal, external, manual and automated), can be transformed and managed to increase efficiency, effectiveness and positively affect performance. Topics include the discovery, analysis, modeling and automation of workflow processes.
3 credits Spring Semester Prerequisites: None

IAKM xxxxx Business Capability Modeling
Business capability modeling is the starting point for mapping knowledge and business information flows across applications (information and business architectures). This course will teach students how to identify and map business capabilities, how to describe them, identify and track all of the people, knowledge/information, applications and technologies that support them. The course will introduce students to several capability modeling methods, including approaches used by large software development companies, institutional approaches, and hybrid models.
2 credit Fall Semester Prerequisites: None

BAM/IAKM xxxxx Data Management
This course addresses data management from the business rather than the computer science or software engineering perspective. The primary focus of the course is on managing data as an asset, modeling and defining characteristics of data, data typologies, understanding metadata and master data, the representation and design of data as knowledge for use in decision making and producing information, data management processes and lifecycles, data capture and collection, data quality, validation and provenance tracking, and data cleanup. Knowledge of database implementations or designs is not required. This course does not focus on database management systems management.
3 credits Summer Semester Prerequisites: None

BAM/IAKM xxxxx Decision Sciences and Systems
This course introduces the basic principles and techniques of managerial decision-making with an emphasis on the use of information and knowledge in the decision-making process. Students will learn how to model a business decision, to recognize assumptions and limitations, and to identify the kinds of information and knowledge that are needed to make an optimum decision. Students will learn how to structure problems and perform logical analyses, and transform business situations into formal models. Decision making contexts will cover several different economic sectors, and address for-, non-, and not-for-profit business contexts.
3 credits Spring Semester Prerequisites: IAKM 60311

TECH/IAKM xxxxx Business Rules Design and Management
This course covers business rules and their use in decision making. Course topics includes comparison of business rules from business processes and from business facts, relationship of business knowledge to business rules, business rule capture and representation methods, principles for rule analysis, using rules in business processes and decision making, traceability and quality control of rules (redundancy, conflicts, equivalence, subsumption), representation of business rules, and validation and verification of business rules.

1 credits Spring Semester Prerequisites: None

BAM/IAKM xxxxx Data Governance and Stewardship
This course covers data stewardship and the governance of data assets as key components of an enterprise level knowledge and information strategy. Course topics include value proposition for data governance, relationship of data governance to data quality, data ownership and stewardship concepts, data governance models and processes, data stewardship functions, roles and responsibilities, and roadmaps for implementing data governance and stewardship programs,
1 credit Summer Semester Prerequisites: None

BAM/IAKM xxxxx Data Quality
This short course covers data quality policies, data quality monitoring processes (verification, validation, integrity), establishing data quality objectives, defining data quality indicators (precision, bias, accuracy, representativeness, comparability, completeness, sensitivity), performing data quality assessments and establishing data quality assurance project plans.
1 credit Summer Session Prerequisites: None

Knowledge Technologies Electives

IAKM xxxxx Semantic Analysis Methods
This course considers how semantic analysis methods and models can be used to improve the efficiency and effectiveness of knowledge asset management and knowledge operations in organizations. Today, much of this work is manually performed, meaning that people use their basic semantic knowledge, their knowledge of concepts, of classification schemes, of cataloging and profiling rules, and abstracting methods to manually organize unstructured information and knowledge, to develop classification structures and thesauri, to discover conceptual relationships and to support text summarization.
3 credits Fall Semester Prerequisites: IAKM 60301

IAKM xxxxx Technology Management in Knowledge Organizations
This course will explore implications, issues and challenges facing the management of technology in knowledge based work environments. We will explore modern technology architectures and business strategies that create and sustain them. We will also explore fiscal budgets and financial tools that, along with benchmarking & other means of measuring performance, enable effective organizational management. An in-depth review of a typical, large scale Information Technology department will illuminate techniques used to forecast current and future Information Technology directions.
3 credits Spring Semester Prerequisites: IAKM 60301

LING/IAKM xxxxx Computational Linguistics
This course introduces students to the history and foundational concepts of computational linguistics, current techniques and applications. Students will gain an understanding of natural language processing (NLP), non-trivial programs for NLP, of the relationship between linguistic theory and computational applications (e.g. related to syntax), the use of large and annotated corpora, and experience with models and algorithms that are used in common practical applications today.
3 credits Spring Semester Prerequisites: None

IAKM xxxxx Knowledge Discovery Technologies
This course introduces students to the architectural design and functionality of technologies that support knowledge discovery. Knowledge discovery technologies include traditional search

engines, clustering engines, recommender engines, question-answering systems, and visualization engines. Students will look under the hood of each of these technologies to gain an understanding of how their architectural design and inner workings. This course is not intended for programmers. This course does not cover searching.
1 credit Fall Semester Prerequisites: None

IAKM xxxxx eDiscovery and Knowledge Management
This course considers the value of knowledge and knowledge management methods to eDiscovery. Discovery is the term used for the initial phase of litigation where the parties in a dispute are required to provide each other relevant electronically stored information and records. The course covers the use of technology to understand the environment in which litigation is taking place, the nature of the domain in which the dispute occurs, determining the most effective approach to discovering relevant information, and understanding the goodness or completeness of the information obtained. The course considers the value of KM to both sides of an eDiscovery request.
1 credit Fall and Spring Semester Prerequisites: None

Knowledge Architecture Electives

DSCI/IAKM xxxxxx Introduction to Enterprise Architecture
Enterprise Architectures facilitates the alignment of IT and IS investment decisions with business goals. Enterprise architecture is increasingly used in the industry as a result of the continued emergence of new technologies and ongoing pressures to reengineer business processes to achieve improved efficiency and greater customer focus. Enterprise architecture identifies the main components of an organization and the ways in which these components work together. The components include performance and strategy, people, business capabilities, applications, technology, knowledge and information, as well as financial and other resources.
3 credits Fall Semester Prerequisites: None

DSCI/IAKM xxxxxx Business Architecture
Introduces students to the concept of business architecture as the critical component of enterprise architecture. Students will learn now to develop an enterprise business architecture, to apply business architecture principles, methods, and artifacts to organizational initiatives to ensure they are aligned with organizational business goals and performance standards. Students will learn how different enterprise architecture frameworks approach the business layer.
3 Credits Spring Semester Prerequisites: DSCI/IAKM (Intro to EA)

DSCI/IAKM xxxxxx - Information and Data Architecture
Introduces students to the concept of data and information architecture as a component of enterprise architecture. Students will learn now to distinguish types of data, develop conceptual and logical data models, trace and map the use of data types across business capabilities, roles and applications, and prepare an enterprise level data dictionary. Students will learn how to work with enterprise data architecture artifacts as they develop an enterprise information architecture blueprint.
3 Credits Spring Semester Prerequisites: DSCI/IAKM (Business Arch)

DSCI/IAKM xxxxx - Application and Technology Architecture
Introduces students to the concept of application and technology architectures in the context of enterprise architecture. Students will learn now to define application and technology architecture principles and standards to support business performance, and to evaluate existing architectures in relation to performance goals. Students will learn to work with application and technology

artifacts and matrices, prepare a technology dictionary, and develop an application architecture blueprint.
3 Credits Fall Semester Prerequisites: DSCI/IAKM (Business Arch)

DSCI/IAKM xxxxx Knowledge and Ontological Engineering
This course introduces students to the theoretical foundations and principles of ontology engineering. Topics covered include formal ontology, description logics and reasoning in description logics. Methods for developing ontologies are discussed. Software tools for encoding ontologies are also covered. Upper-level ontologies (FRBR, CIDOC-CRN, ABC-model), foundational ontologies (DOLCE, OCHRE, BFO, OpenCYC, SUMO, KR Ontology) and ontology design patterns are covered.
3 credits Fall Semester Prerequisites: IAKM 60002

IAKM xxxxx - Knowledge Architectures
This short course considers the components and design specifications for an enterprise knowledge architecture. Knowledge architecture concepts derive from knowledge principles, knowledge practices and knowledge typologies developed in the knowledge management domain. Knowledge architecture is also a key layer in the enterprise architecture stack, linking to business architecture, information/data architecture and people. Students will walk through an enterprise architecture design methodology to derive a knowledge architecture blueprint for an organization.
1 credit Fall Semester Prerequisites: IAKM 60301

IAKM xxxxxx - Multilingual Architectures
This course provides a high level introduction to the components and functions of multilingual architectures. Topics include functional components such as multilingual interface design, localization, multilingual search architectures, bilingual and multilingual translation application architectures, cross-language thesauri and synonym sources, character representation (Unicode), as well as governance and management issues.
1 credit Fall Semester Prerequisites: None

Knowledge Asset Management

IAKM 60302 Document Management (same but refocused)
This course provides principles, projects, and practices for organizational memory management that includes document, records, media, e-mail and enterprise content management with concerns for strategy, compliance, policy, security and workflow.
3 credits Spring Semester Prerequisites: None

IAKM xxxxx Records Management
(new description/proposal coming from Len)
3 credits Fall Semester Prerequisites: IAKM 60302

DSCI/IAKM xxxxx Knowledge Transfer Methods
This short master's course looks at several practical and successful techniques for transferring expertise. The workshop addresses the nature of expertise, the way that experts think and the nature of expert judgment. The course provides in depth coverage of how experts' thinking differs from that of novices: how they learn to recognize patterns among large amounts of information, their ability to identify and distinguish problems of significance, their ability to identify multiple options, and their improvisational approaches to solving these problems. The course will cover immersive learning methods that can be used to teach expert knowledge to others.
2 credits Fall Semester